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**(54) ELECTRODE MATERIAL FOR ELECTRIC  
DISCHARGE MACHINING AND ITS PRODUCTION**

**(57) Abstract:**

**PURPOSE:** To manufacture an electrode material for electric discharge machining capable of reducing electrode consumption in the working of super hard materials, by mixing powdered W and powdered WC in a specific ratio, by subjecting the resulting powder mixture to compacting and sintering, and by infiltrating specific amounts of Cu or Ag into the obtained sintered compact.

**CONSTITUTION:** The powdered W and the powdered

WC are mixed in a ratio of 65:35W80:20, by weight, and the resulting powder mixture is compacted with proper addition of a binder. It is preferable that the average grain sizes of above-mentioned powdered W and powdered WC are regulated to 1.5W8 $\mu$ m and 1W6 $\mu$ m, respectively. Then the green compact obtained is sintered at about 1,000W1,200°C to be formed into a skeleton of sintered compact consisting of W and WC. Subsequently, Cu and/or Ag is infiltrated into the above skeleton at about 1,100W1,300°C so that W+WC=60W80wt% is satisfied. In this way, the electrode material for electric discharge machining can be obtained.

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